DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A10SW Revision 14 Mitsubishi MU-2B-25

MU-2B-35 MU-2B-26 MU-2B-36 MU-2B-36A MU-2B-40

MU-2B-60

August 25, 2003

TYPE CERTIFICATION DATA SHEET NO. A10SW

This data sheet which is part of Type Certificate No. A10SW prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder: Mitsubishi Heavy Industries, Ltd. (see Note 5.)

16-5, KONAN 2-CHOME, MINATO-KU

TOKYO, 108-8215

JAPAN

I. MU-2B-25, 6 to 9 PCLM (Normal Category) Approved January 20, 1976

Engines 2 Honeywell (AiResearch / Garrett) TPE331-6-251M

Propeller-shaft to engine-rotor ratio 1:20.865

Fuel Fuels as designated:

Aviation Turbine Fuel ASTM D1655-68T

Types Jet A, Jet A-1, and Jet B

MIL-T-5624G-1 Turbine Fuel: Grades JP-4 and JP-5

MIL-T-5616-1 Fuel; Grade JP-1 MIL-F-46005A (MR) -1; Type I and II D. Eng. R.D. 2482; Issue No. 2 D. Eng. R.D. 2486; Issue No. 2 D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 Octane Aviation

Gasoline (as emergency fuel only)

ASTM D910 Aviation Gasoline Grade 100LL (as an emergency fuel only)

Oil Oils conforming to MIL-L-23699

Engine Limits Static Sea Level Rating (I.S.A.)

	Shaft	Propeller	Maximum Permissible
	Horsepower	Shaft Speed	Interstage Turbine
	(SHP)	(%)*	Temperature (°C)
Takeoff (5 min.)	665	100	923
Maximum continuous	665	100	923
Starting transient (1 sec.)			1149

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

*The maximum allowable propeller shaft speed is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 2,000 RPM.

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MU-2B-25 (cont'd)

Propeller and Propeller Limits.

2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11 with 3 blades each, or 2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11R with 3 blades each. See note 7 and 10.

Diameter: 90-3/8 inches

Pitch setting at 30 in. Station

Flight Idle 12° Feathered $87^{\circ} \pm 0.5^{\circ}$ Reverse -6.5°

Airspeed Limits (CAS)

Vmo (Maximum Operating): 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 ft. to account for Mmo = .57 M

Vp (Maneuvering) : 181 knots (287 mph)

Vfe (Flaps extended)

Flap 5° : 175 knots (201 mph)
Flap 20°, 40° : 140 knots (161 mph)
Vlo (Landing gear operating) : 160 knots (184 mph)
Vle (Landing gear extended) : 162 knots (187 mph)

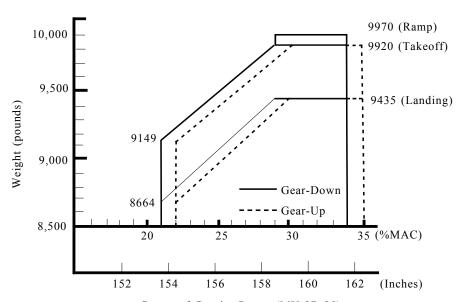
Vmc(Minimum control) : Flap 5°

100 knots (115 mph)

Flap 20°

93 knots (107 mph)

C.G. Range



Center of Gravity Range (MU-2B-25)

Ramp & Takeoff	Forv	Forward		.ft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+154.3	22	+162.2	35	9149
Condition	+159.2	30	+162.2	35	9920
Gear	+153.8	21	+161.6	35	9149
Down	+158.6	29	+161.6	34	9920
Condition	+158.6	29	+161.6	34	9970

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MU-2B-25 (cont'd)

Landing	For	ward	Α	Aft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+154.3	22	+162.2	35	8664
Condition	+159.2	30	+162.2	35	9435
Gear Down	+153.8	21	+161.6	34	8664
Condition	+158.6	29	+161.6	34	9435

Straight line variation between points given.

Moment change due to gear retraction is +6738 In-Lbs.

Maximum zero fuel weight - 9435 lbs.

Maximum Weight Ramp: 9,970 lbs. Takeoff: 9,920 lbs.

Landing: 9,435 lbs.

No. of Seats Maximum 9 (Pilot at +97.2)

See loading instructions for passenger loading.

Maximum Baggage 574 lbs. (200 lbs. at +205.1) (220 lbs. at +230.7)

(154 lbs. at +253.2)

Fuel Capacity Wing Tank 159 gal. (+167.3) 154 gal. Outer Tank (2 at 15 gal. ea.) 30 gal. (+163.4) 30 gal. Tip Tank (2 at 93 gal. ea.) 186 gal. (+155.9) 180 gal. Total 375 gal. 364 gal.

Fuel weights are based on 6.5 lbs./gal.

Fuel Usage Procedure The fuel quantity of each tip tank must not be more than 65 gallons before

landing.

Oil Capacity Total 3.1 gal. (1.55 gal. each tank)

(+138.7)

Maximum Operating Altitude 25,000 ft.

Control Surface Movements Spoiler Up 60°

Aileron Trim Up 20° Down 20° Elevator Up 33° Down 10°

Elevator Tab Nose Up 30° Nose Down 1° (See Note 8)

RudderRight25°Left22°Rudder TabRight25°Left25°Flap OutboardDown40°Flap InboardDown40°

Serial Nos. Eligible MU-2B-25 313 S.A.

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Model MU-2B-35, 8 to 11 PCLM (Normal Category) approved January 20, 1976

Engines 2 Honeywell (AiResearch / Garrett) TPE331-6-251M

Propeller-shaft to engine-rotor ratio 1: 20.865

Fuel Fuels as designated

Aviation Turbine Fuel ASTM D1655-68T

Types Jet A, Jet A-1, and Jet B

MIL-T-5624G-1 Turbine Fuel; Grades JP-4 and JP-5

MIL-F-5616-1 Fuel; Grade JP-1 MIL-F-46005A (MR) - 1; Type I and II

D. Eng. R.D. 2482; Issue No. 2D. Eng. R.D. 2486; Issue No. 2D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 Octane Aviation

Gasoline (as emergency fuel only)

ASTM D910 Aviation Gasoline Grade 100LL (as an emergency fuel only)

Oil Oils conforming to MIL-L-23699

Engine Limits

	Shaft	Propeller	Maximum Permissible
	Horsepower	Shaft Speed	Interstage Turbine
	(SHP)	(%)*	Temperature (°C)
Takeoff (5 min.)	665	100	923
Maximum continuous	665	100	923
Starting transient (1 sec.)			1149

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

Propeller and Propeller Limits

2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11 with 3 blades each or 2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11R with 3 blades each. See Note 7 and 10.

Diameter: 90-3/8 inches

Pitch setting at 30 in. station

Flight Idle 12° Feathered $87^{\circ} \pm 0.5^{\circ}$ Reverse -6.5°

Airspeed Limits (CAS)

Vmo (Maximum Operating): 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 ft. to account for Mmo = .57 M

Vp (Maneuvering) : 188 knots (216 mph)

Vfe (Flaps extended)

Flap 5° : 175 knots (201 mph) Flap 20°, 40° : 146 knots (168 mph)

Vlo (Landing gear operating)

Retract : 170 knots (195 mph) Extend : 170 knots (195 mph) Vle (Landing gear extended) : 170 knots (195 mph)

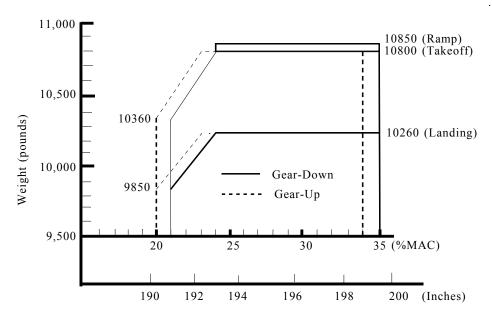
Vmc(Minimum control)

Flap 5° : 99 Knots (114 mph) Flap 20° : 90 Knots (104 mph)

^{*}The maximum allowable propeller shaft is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 2,000 rpm.

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MU-2B-35 C.G. Range



Ramp & Takeoff	Forv	ward	A	Aft	Weight	
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds	
Gear Up	+190.3	20	+198.8	34	10360	
Condition	+192.1	23	+198.8	34	10800	
Gear	+190.9	21	+199.4	35	10360	
Down	+192.8	24	+199.4	35	10800	
Condition	+192.8	24	+199.4	35	10850	

Landing	For	ward	I I	Aft	Weight	
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds	
Gear Up	+190.3	20	+198.8	34	9850	
Condition	+192.1	23	+198.8	34	10260	
Gear Down	+190.9	21	+199.4	35	9850	
Condition	+192.8	24	+199.4	35	10260	

Straight line variation between points given.

Moment change due to gear retraction is -6556 in-lbs.

Maximum zero fuel weight - 9950 lbs.

Maximum weight Ramp: 10,850 lbs. Takeoff: 10,800 lbs.

Landing: 10,260 lbs.

Number of seats Maximum 11 (pilot at +97.2)

See loading instructions for passenger loading.

Maximum baggage 600 lbs. at +286.8

Fuel capacity TOTAL

 Wing tank
 TOTAL CAP 159 gal. (+204.5)
 USABLE 154 gal.

 Outer tank (2 at 15 gal. ea.)
 30 gal. (+201.0)
 30 gal.

 Tip tank (2 at 93 gal. ea.)
 186 gal. (+193.1)
 180 gal.

 Total
 375 gal.
 364 gal.

Fuel weights are based on 6.5 lbs./gal.

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MU-2B-35 (cont'd)

Fuel Usage Procedure The fuel quantity of each tip tank must not be more than 65 gallons before landing.

Oil capacity Total 3.1 gal. (1.55 gal. each tank) (+175.9)

Maximum Operating Altitude 25,000 ft.

Control Surface Movements Spoiler Up 60°

 $\begin{array}{ccccc} \text{Aileron Trim} & \text{Up} & 20^{\circ} & \text{Down} & 20^{\circ} \\ \text{Elevator} & \text{Up} & 28^{\circ} & \text{Down} & 12^{\circ} \end{array}$

Elevator Tab Nose Up 30° Nose Down 1° (See Note 8)

RudderRight24°Left22°Rudder TabRight25°Left25°Flap OutboardDown40°Flap InboardDown40°

Serial Nos. Eligible MU-2B-35 652 S.A.

Model MU-2B-26, 6 to 9 PCLM (Normal Category) approved March 9, 1976

Engines 2 Honeywell (AiResearch / Garrett) TPE331-6-251M

Propeller-shaft to engine-rotor ratio 1:20.865

Fuels as designated:

Aviation Turbine Fuel ASTM D1655-68T

Types Jet A, Jet A-1 and Jet B

MIL-T-5624G-1 turbine fuel: Grades JP-4 and JP-5

MIL-F-5616-1 Fuel; Grade JP-1 MIL-F-46005A (MR) -1; Types I and II D. Eng. R. D. 2482: Issue No. 2

D. Eng. R.D. 2482; Issue No. 2 D. Eng. R.D. 2486; Issue No. 2 D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 Octane Aviation

Gasoline (as emergency fuel only)

ASTM D910 aviation gasoline grade 100LL (as emergency fuel only)

Oil Oils conforming to MIL-L-23699

Engine Limits Static Sea Level Rating (I.S.A.)

	Shaft Horsepower (SHP)	Propeller Shaft Speed (%)*	Maximum Permissible Interstage Turbine Temperature (°C)
Takeoff (5 min.)	665	100	923
Maximum continuous	665	100	923
Starting transient (1 sec.)			1149

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

^{*}The maximum allowable propeller shaft speed is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 2,000 rpm.

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Model MU-2B-26 (cont'd)

Propeller and Propeller Limits 2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11 with 3 blades each, or 2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11R with 3 blades each. See Note 7 and 10.

Diameter: 90-3/8 inches

Diameter: 30 5/0 menes

Pitch setting at 30 in. Station

Flight Idle $12^{\circ} \pm 0.1^{\circ}$ (see Note 3)

Feathered $87^{\circ} \pm 0.5^{\circ}$ Reverse -6.5°

Airspeed Limits (CAS)

Vmo (maximum operating) : 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 ft. to account for Mmo = .57

Vp (Maneuvering) : 182 knots (209 mph)

Vfe (Flaps extended)

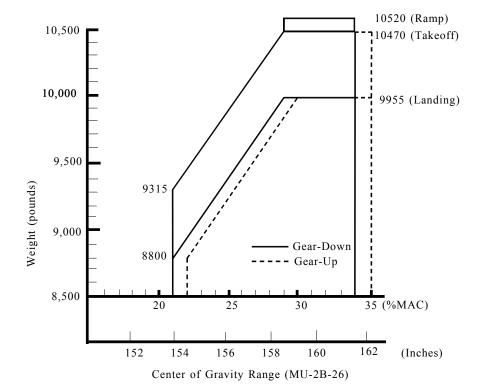
Flap 5° : 175 knots (201 mph)
Flap 20°, 40° : 155 knots (178 mph)
Vlo (Landing gear operating) : 170 knots (196 mph)
Vle (Landing gear extended) : 170 knots (196 mph)

Vmc(Minimum control) : Flap 5°

100 knots (115 mph)

Flap 20°

93 knots (107 mph)



Model MU-2B-26 (cont'd)

TO 2D 20 (cont a)					
Ramp & Takeoff	Forward		A	<u>A</u> ft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+154.3	22	+162.2	35	9315
Condition	+159.2	30	+162.2	35	10470
Gear	+153.7	21	+161.6	34	9315
Down	+158.6	29	+161.6	34	10470
Condition	+158.6	29	+161.6	34	10520

Landing	Forv	vard	A	ft	Weight	
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds	
Gear Up	+154.3	22	+162.2	35	8800	
Condition	+159.2	30	+162.2	35	9955	
Gear Down	+153.7	21	+161.6	34	8800	
Condition	+158.6	29	+161.6	34	9955	

Straight line variation between points given.

Moment change due to gear retraction is +6738 in-lbs.

Maximum zero fuel weight - 9700 lbs.

Maximum weight Ramp: 10,520 lbs. Takeoff: 10,470 lbs.

Landing: 9,955 lbs.

No. of seats Maximum 9 (maximum operating altitude 25,000 ft.) (pilot at +97.2)

Maximum 7 (maximum operating altitude 28,000 ft.) (pilot at +97.2)

See loading instructions for passenger loading.

Maximum baggage 574 lbs. (200 lbs. at +201.5) (220 lbs. at +230.7)

(154 lbs. at +253.2)

Fuel capacity

Wing tank
Outer tank (2 at 15 gal. ea.)
Tip tank (2 at 93 gal. ea.)

Wing tank
Total

TOTAL CAP
USABLE

159 gal. (+167.3)
154 gal.
30 gal. (+163.4)
30 gal.
186 gal. (+155.9)
180 gal.
364 gal.

Fuel weights are based on 6.5 lbs./gal.

Fuel Usage Procedure The fuel quantity of each tip tank must not be more than 65 gallons before landing.

Oil Capacity Total 3.1 gal. (1.55 gal. each tank) (+138.7)

(. 1

Maximum Operating Altitude 28,000 ft.

Control Surface Movements Spoiler Up 60°

 $\begin{array}{cccccc} \text{Aileron Trim} & \text{Up} & 20^{\circ} & \text{Down} & 20^{\circ} \\ \text{Elevator} & \text{Up} & 33^{\circ} & \text{Down} & 10^{\circ} \end{array}$

Elevator Tab Nose Up 30° Nose Down 1° (See Note 8)

Serial Nos. Eligible MU-2B-26 349 S.A.

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Model MU-2B-36, 6 to 9 PCLM (Normal Category) Approved March 9, 1976

Engines 2 Honeywell (AiResearch / Garrett) TPE331-6-251M

Propeller-shaft to engine-rotor ratio 1: 20.865

Fuel Fuels as designated:

Aviation Turbine Fuel ASTM D1655-68T

Types Jet A, Jet A-1 and Jet B

MIL-T-5624G-1 Turbine Fuel: Grades JP-4 and JP-5

MIL-F-5616-1 Fuel; Grade JP-1 MIL-F-46005A (MR) -1; Type I and II D. Eng. R.D. 2482; Issue No. 2 D. Eng. R.D. 2486; Issue No. 2 D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 octane aviation

Gasoline (as emergency fuel only)

ASTM D910 aviation gasoline Grade 100LL (as emergency fuel only)

Oil Oils conforming to MIL-L-23699

Engine Limits Static Sea Level Rating (I.S.A.)

	Shaft Horsepower (SHP)	Propeller Shaft Speed (%)*	Maximum Permissible Interstage Turbine Temperature (°C)
Takeoff (5 min.)	715	100	923
Maximum continuous Starting transient (1 sec.)	715	100	923 1149

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

Propeller and Propeller Limits

2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11 with 3 blades each, or 2 Hartzell HC-B3TN-5(C or E or M)/T10178(N)B -11R with 3 blades each. See Note 7 and 10.

Diameter: 90-3/8 inches

Pitch setting at 30 in. station

Flight idle $12^{\circ} \pm 0.1^{\circ}$ (see Note 3)

Feathered $87^{\circ} \pm 0.5^{\circ}$ Reverse -6.5°

Airspeed Limits (CAS)

Vmo (maximum operating) : 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 ft. to account for Mmo = .57

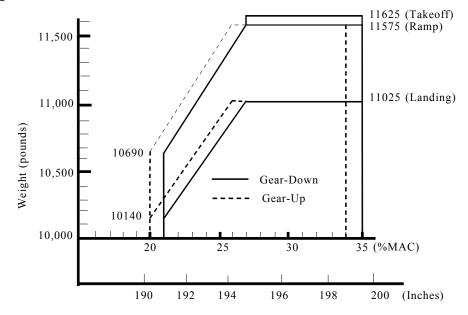
Vp (Maneuvering) : 191 knots (220 mph)

Vfe (Flaps extended)

Flap 5° : 175 knots (201 mph)
Flap 20°, 40° : 155 knots (178 mph)
Vlo (Landing gear operating) : 175 knots (201 mph)
Vle (Landing gear extended) : 175 knots (196 mph)
Vmc(Minimum control) : 99 knots (114 mph)

^{*}The maximum allowable propeller shaft speed is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 2,000 rpm.

MU-2B-36 C.G. Range



Ramp & Takeoff	Forward		A	.ft	Weight	
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds	
Gear Up	+190.3	20	+198.8	34	10690	
Condition	+194.0	26	+198.8	34	11575	
Gear	+190.9	21	+199.4	35	10690	
Down	+194.6	27	+199.4	35	11575	
Condition	+194.6	27	+199.4	35	11625	

Landing	Forv	vard	A	.ft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+190.3	20	+198.8	34	10140
Condition	+194.0	26	+198.8	34	11025
Gear Down	+190.9	21	+199.4	35	10140
Condition	+194.6	27	+199.4	35	11025

Straight line variation between points given.

Moment change due to gear retraction is -6556 in-lbs.

Maximum zero fuel weight - 9950 lbs.

 Maximum weight
 Ramp:
 11,625 lbs.

 Takeoff:
 11,575 lbs.

 Landing:
 11,025 lbs.

No. of seats Maximum 11 (pilot at + 97.2)

See loading instructions for passenger loading.

Maximum baggage 600 lbs. at +286.8

Fuel capacity

Wing tank

TOTAL CAP
USABLE
159 gal. (+204.5)
154 gal.

Outer tank (2 at 15 gal. ea.) 30 gal. (+201.0) 30 gal. Tip tank (2 at 93 gal. ea.) 186 gal. (+193.1) 180 gal. Total 375 gal. 364 gal.

Fuel weights are based on 6.5 lbs./gal.

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MU-2B-36 (cont'd)

Fuel Usage Procedure The fuel quantity of each tip tank must not be more than 65 gallons before landing.

Oil Capacity Total 3.1 gal. (1.55 gal. each tank)

(+175.9)

Maximum Operating Altitude 25,000 ft.

Control Surface Movements Spoiler Up 60°

Aileron Trim Up 20° Down 20° Elevator Up 28° Down 12°

Elevator Tab Nose Up 30° Nose Down 1° (See Note 8)

Rudder 24° 22° Right Left Rudder Tab 25° 25° Right Left Flap Outboard 40° Down Flap Inboard 40° Down

Serial Nos. Eligible MU-2B-36 None

Model MU-2B-26A, 6 to 9 PCLM (Normal Category) approved January 12, 1977 Model MU-2B-40, 6 to 9 PCLM (Normal Category) approved March 2, 1978

Engines

Model MU-2B-26A 2 Honeywell (AiResearch / Garrett) TPE331-5-252M

Propeller-shaft to engine-rotor ratio 1:26.2287

Model MU-2B-40 2 Honeywell (AiResearch / Garrett) TPE331-10-501M or

2 Honeywell (AiResearch / Garrett) TPE 331-10-511M Propeller-shaft to engine-rotor ratio 1 : 26.2287

Fuels Fuels as designated

Aviation turbine fuel ASTM D1655-68T

Types Jet A, Jet A-1, and Jet B

MIL-T-5624G-1 turbine fuel; Grades JP-4 and JP-5

MIL-F-5616-1 Fuel; Grade JP-1 MIL-F-46005A (MR) -1; Types I and II

D. Eng. R.D. 2482; Issue No. 2

D. Eng. R.D. 2486; Issue No. 2 D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 octane aviation

Gasoline (as emergency fuel only)

ASTM D910 aviation gasoline grade 100LL (as an emergency fuel only)

Oil Oils conforming to MIL-L-23699

Engine Limits Static Sea Level Rating (I.S.A.)

	Shaft	Propeller	Maximum	Permissible
	Horsepower	Shaft Speed	Interstag	ge Turbine
	(SHP)	(%)*	Temperatu	re (-26A) or
			Exhai	ust Gas
			Tempera	ture (-40)
			(°	°C)
			(-26A)	(-40)
Takeoff (5 min.)	665	100	923	650
Maximum continuous	665	100	923	650
Starting transient (1 sec.)			1149	770

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

^{*}The maximum allowable propeller shaft speed is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 1591 rpm.

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Model MU-2B-26A, Model MU-2B-40 (cont'd)

Propeller and propeller limits

2 Hartzell HC-B4TN/5DL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN/5DL/LT10282NSK-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5GL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5GL/LT10282NSK-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5JL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5JL/LT10282NSK-5.3R with 4 blades each. (See Note 9)

Diameter: 98 inches

Pitch setting at 30 in. station

Flight idle $12^{\circ} \pm 0.1^{\circ}$ (see Note 3) Feathered $88^{\circ} \pm 0.7^{\circ}$

Reverse -6.5°

Airspeed Limits (CAS)

Vmo (maximum operating) : 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 ft. to account for Mmo = .57

Vp (Maneuvering) : 182 knots (209 mph)

Vfe (Flaps extended)

Flap 5° : 175 knots (201 mph)
Flap 20°, 40° : 155 knots (178 mph)
Vlo (Landing gear operating) : 170 knots (196 mph)
Vle (Landing gear extended) : 170 knots (196 mph)

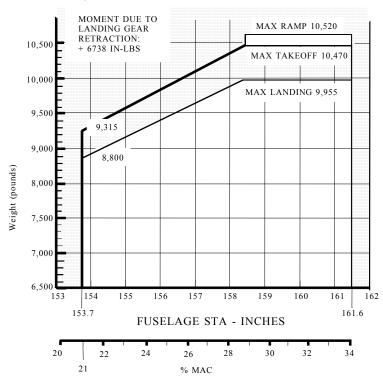
Vmc(Minimum control) : Flap 5°

100 Knots (115 mph)

Flaps 20°

93 knots (107 mph)

C.G. Range (MU-2B-26A and MU-2B-40)



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Model MU-2B-26A, Model MU-2B-40 (cont'd)

Ramp & Takeoff	Forv	ward	A	Aft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+154.3	22	+162.2	35	9315
Condition	+159.2	30	+162.2	35	10470
Gear	+153.7	21	+161.6	34	9315
Down	+158.6	29	+161.6	34	10470
Condition	+158.6	29	+161.6	34	10520

Landing	Forv	vard	A	.ft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+154.3	22	+162.2	35	8800
Condition	+159.2	30	+162.2	35	9955
Gear Down	+153.7	21	+161.6	34	8800
Condition	+158.6	29	+161.6	34	9955

Straight line variation between points given.

Moment change due to gear retraction is +6738 in-lbs.

Maximum zero fuel weight - 9700 lbs.

Maximum weight	Ramp	10,520 lbs.
	Takeoff	10,470 lbs.
	Landing	9,955 lbs.

No. of seats Maximum 9 (maximum operating altitude 25,000 ft.) (pilot at +97.2)

Maximum 7 (maximum operating altitude 28,000 ft.) (pilot at +97.2) Model MU-2B-26A Maximum 7 (maximum operating altitude 31,000 ft.) (pilot at +97.2) Model MU-2B-40

See loading instructions for passenger loading.

Maximum baggage 574 lbs. (200 lbs. at +205.) (220 lbs. at +230.7)

(154 lbs. at +253.2)

Fuel capacity		TOTAL CAP	USABLE
	Wing tank	159 gal. (+167.3)	154 gal.
	Outer tank (2 at 15 gal. ea.)	* 30 gal. (+163.4)	30 gal.
	(2 at 35.3 gal. ea.)	**70.6 gal. (+163.4)	69 gal.
	Tip tank (2 at 93 gal. ea.)	186 gal. (+155.9)	180 gal.
	Total	*375 gal.	364 gal.
		**415.6 gal.	403.0 gal.

Fuel weights are based on 6.5 lbs./gal.

*MU-2B-26A, all S/N's, MU-2B-40, S/N 365 S.A.

**MU-2B-40, S/N 395 S.A. thru 459 S.A.

Fuel usage procedure

The fuel quantity of each tip tank must not be more than 65 gallons (-26A) and 400 pounds

(-40) before landing.

Oil capacity Total 3.1 gal. (1.55 gal. each tank) (+138.7)

Maximum operating altitude Model MU-2B-26A 28,000 ft.

Model MU-2B-40 31,000 ft.

Model MU-2B-26A, Model MU-2B-	40 (cont'd)					
Control Surface Movements	Spoiler	Up	60°			
	Aileron Trim	Up	20°	Down	20°	
	Elevator	Up	33°	Down	10°	
	Elevator Tab	Nose Up	30°	Nose Down	1° (See Note 8)	
	Rudder	Right	22°	Left	25°	'
	Rudder Tab	Right	25°	Left	25°	
	Flap Outboard			Down	40°	
	Flap Inboard			Down	40°	
Serial Nos. eligible	MU-2B-26A	321 S.A. 3	48 S.A	., 350 S.A. thru 3	64 S.A., 366 S.A. t	hru 394 S.A.

Model MU-2B-36A, 8 to 11 PCLM (Normal Category) Approved January 12, 1977 Model MU-2B-60, 8 to 11 PCLM (Normal Category) approved March 2, 1978

MU-2B-40

_			
Η'n	21	n	es

Model MU-2B-36A 2 Honeywell (AiResearch / Garrett) TPE331-5-252M Propeller-shaft to engine-rotor ratio 1: 26.2287

Model MU-2B-60 2 Honeywell (AiResearch / Garrett) TPE331-10-501M or

2 Honeywell (AiResearch / Garrett) TPE 331-10-511M Propeller-shaft to engine-rotor ratio 1:26.2287

365 S.A. 395 S.A. thru 459 S.A.

Fuel Fuels as designated:

Aviation turbine fuel ASTM D1655-68T

Types Jet A, Jet A-1, and Jet B

MIL-T-5624G-1 turbine fuel: Grades JP-4 and JP-5

MIL-F-5616-1 Fuel; Grade JP-1

MIL-F-46005A (MR) -1; Types I and II

D. Eng. R.D. 2482; Issue No. 2D. Eng. R.D. 2486; Issue No. 2D. Eng. R.D. 2494; Issue No. 4

MIL-G-5572D; Grade 80/87 octane aviation

Gasoline (as emergency fuel only)

ASTM D910 aviation gasoline 100LL (as emergency fuel only)

Oils conforming to MIL-L-23699

Engine Limits Static Sea Level Rating (I.S.A.)

Static Sea Lev	ei Kating (1.S.A.)			
	Shaft	Propeller	Maximum	Permissible
	Horsepower	Shaft Speed	Interstag	e Turbine
	(SHP)	(%)*	Temperatu	re (-36A) or
			Exhau	ıst Gas
			Tempera	ture (-60)
			(°	°C)
			(-36A)	(-60)
Takeoff (5 min.)	715	100	923	650
Maximum continuous	715	100	923	650
Starting transient (1 sec.)			1149	770

At low altitude and low ambient temperature, the engines may produce more power than that for which the aircraft has been certificated. Under these conditions, the placarded torque meter limitations shall not be exceeded.

^{*}The maximum allowable propeller shaft speed is 106% for a transient period not to exceed 5 seconds, and 101% continuous. 100% propeller shaft speed is defined as 1,591 rpm.

Model MU-2B-36A, Model MU-2B-60 (cont'd)

Propeller and Propeller Limits

2 Hartzell HC-B4TN/5DL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5DL/LT10282NSK-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5GL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5GL/LT10282NSK-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5JL/LT10282NSB-5.3R with 4 blades each, or 2 Hartzell HC-B4TN-5JL/LT10282NSK-5.3R with 4 blades each. (See Note 9)

Diameter: 98 inches

Pitch setting at 30 in. station

Flight Idle $12^{\circ} \pm .1^{\circ}$ (see Note 3)

Feathered $88.0 \pm .7^{\circ}$ Reverse -6.5°

Airspeed Limits (CAS)

Vmo (Maximum Operating) : 250 knots (287 mph)

Decrease by 5 knots per 1,000 ft. above 21,300 feet to account for Mmo - .57

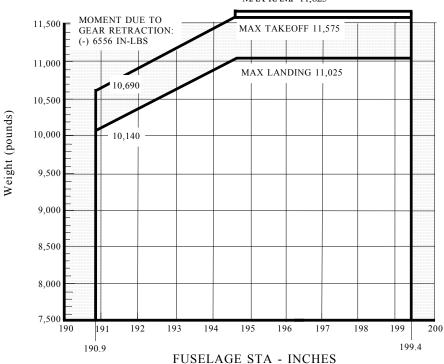
Vp (Maneuvering) : 191 knots (220 mph)

Vfe (Flaps extended)

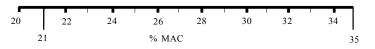
Flap 5° : 175 knots (201 mph)
Flap 20°, 40° : 155 knots (178 mph)
Vlo (Landing gear operating) : 175 knots (201 mph)
Vle (Landing gear extended) : 175 knots (201 mph)
Vmc(Minimum control) : 99 knots (114 mph)

(Flap deflection 5° and 20°)





Center of Gravity Envelope (MU-2B-36A and MU-2B-60)



Model MU-2B-36A, Model MU-2B-60 (cont'd)

Ramp & Takeoff	Forv	ward	A	Aft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+190.3	20	+198.8	34	10690
Condition	+194.0	26	+198.8	34	11575
Gear	+190.9	21	+199.4	35	10690
Down	+194.6	27	+199.4	35	11575
Condition	+194.6	27	+199.4	35	11625

Landing	Forv	vard	A	.ft	Weight
C.G. Ranges	In.	%MAC	In.	%MAC	Pounds
Gear Up	+190.3	20	+198.8	34	10140
Condition	+194.6	26	+198.8	34	11025
Gear Down	+190.9	21	+199.4	35	10140
Condition	+194.0	27	+199.4	35	11025

Straight line variation between points given.

Moment change due to gear retraction is -6556 in-lbs.

Maximum zero fuel weight - 9950 lbs.

Maximum weight Ramp: 11,625 lbs.

Takeoff: 11,575 lbs. Landing: 11,025 lbs.

No. of seats Maximum 11 (pilot at +97.2)

See loading instructions for passenger loading.

Maximum baggage 600 lbs. at +286.8

Fuel capacity

Wing tank
Outer tank (2 at 15 gal. ea.)
(2 at 35.3 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Wing tank
Outer tank (2 at 15 gal. ea.)

Tip tank (2 at 93 gal. ea.)

Total

186 gal. (+193.1)

*375 gal.

*403.0 gal.

403.0 gal.

Fuel weights are based on 6.5 lbs./gal.

*MU-2B-36A, all S/N's, MU-2B-60, S/N 700 S.A.

**MU-2B-60, S/N 731 S.A. thru 799 S.A., 1501 S.A. thru 1569 S.A.

Fuel usage procedure (-60) before landing.

The fuel quantity of each tip tank must not be more than 65 gallons (-36A) and 400 pounds

Oil capacity Total 3.1 gal. (1.55 gal. each tank)

(+175.9)

Maximum operating altitude Model MU-2B-36A 25,000 ft.

Model MU-2B-60 31,000 ft.

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Model MU-2B-36A, Model MU-2B-60 (cont'd)

Control Surface Movements	Spoiler	Up 60	0
	4 '1 m '	TT 20	^

Aileron Trim Up 20° Down 20° Elevator Up 28° Down 12°

Elevator Tab Nose Up 30° Nose Down 1° (See Note 8)

Serial Nos. Eligible MU-2B-36A 661 S.A. 697 S.A. thru 699 S.A., 701 S.A. thru 730 S.A.

MU-2B-60 700 S.A. 731 S.A. thru 799 S.A., 1501 S.A. thru 1569 S.A. (see Note 4).

DATA PERTINENT TO ALL MODELS

Datum Nose of fuselage for Models MU-2B-25, MU-2B-26, MU-2B-26A, and MU-2B-40

(Forward 183.46 in. (4660 mm) from front plane of wing rear spar fuselage connecting frame). 6.69 in. (170 mm) aft of nose for Models MU-2B-35, MU-2B-36, MU-2B-36A, and MU-2B-60 (Forward 220.67 in. (5605 mm) from front plane of wing rear spar

fuselage.

MAC 60.55 in. (Leading edge of MAC is at +141.03 (MU-2B-25, MU-2B-26, MU-2B-26A,

and MU-2B-40, and at +178.23 (MU-2B-35, MU-2B-36, MU-2B-36A, and MU-2B-60).

Leveling means Position spirit level on the R.H. bracket of keel (STA. 5809, STA. 6020) longitudinally,

and on the channel of door actuator laterally for Models MU-2B-25, MU-2B-26,

U-2B-26A, and MU-2B-40.

A plumb bob suspension crip fitted to the channel of the pressure bulkhead (STA. 8035), and a leveling provision scale on the equipment floor in the electrical compartment for

Models MU-2B-35, MU-2B-36, MU-2B-36A, and MU-2B-60.

Certification basis CAR 3 dated May 15, 1956, including Amendments 3-1 through 3-8 plus the Special

Conditions stated in FAA letter to the JCAB dated May 14, 1965, modified by FAA letters to the JCAB dated January 25, 1968, and May 12, 1971. Exemption No. 1951,

dated February 4, 1974, granted an exemption from Section 21.17.

Type Certification No. A10SW issued January 20, 1976. Application for Type Certificate dated September 12, 1973.

Production basis None (See Note 6)

Export eligibility The Models MU-2B-26A, MU-2B-36A, MU-2B-40, and MU-2B-60 comply with French

Certification requirements of the Secretariat General a l' Aviation Civile of France when

modified in accordance with K940A-6006 kit installation.

Required equipment The basic required equipment as prescribed in the applicable airworthiness regulations

(see Certification Basis) must be installed in the aircraft for type certification.

Mitsubishi Aircraft International Report MR0128 (MU-2B-25), MR0127 (MU-2B-35), MR0130 (MU-2B-26), MR0192 (MU-2B-26A), MR0269 (MU-2B-40), MR0129 (MU-2B-36), MR0193 (MU-2B-36A) and MR0270 (MU-2B-60) contain lists of all required equipment as well as optional equipment installations approved by the FAA.

Import requirements None

- NOTE 1: (a) Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original airworthiness certification.
 - (b) The certificate empty weight and corresponding center of gravity location must include unusable fuel and undrainable oil as flows:

Unusable Fuel (MU-2B-25, MU-2B-26, MU-2B-26A, MU-2B-40, S/N 365) 71.5 lbs. at +161.1; (MU-2B-40, S/N 395 and up) 81.90 lbs. at +161.4.

Unusable Fuel (MU-2B-35, MU-2B-36, MU-2B-36A, MU-2B-60, S/N 700) 71.5 lbs. at + 198.3; (MU-2B-60, S/N 731 and up) 81.90 lbs. at +198.6.

- NOTE 2. This aircraft must be operated in accordance with the FAA approved Airplane Flight Manual.
 - Serial numbers of aircraft. The serial number under this certificate must include the letters S.A. S.A. stands for San Angelo. Example: S/N xxxS.A.
- NOTE 3. MU-2B-26A/-40, S/N 321SA, 348SA, 350SA through 419SA, 421SA, 422SA, and 423SA; and MU-2B-36A/-60, S/N 661SA, 697SA through 747SA, 749SA through 757SA, and 759SA through 773SA are eligible for operation with 16° propeller flight idle pitch settings. Service Bulletin SB 016/61-001 dated March 18, 1980, covers changes for use of 12° setting. Both propellers must be set for the same pitch setting, either 12° or 16°.
- NOTE 4. MU-2B-60's S/N 1570, 1571, 1572, 1573, 1574, 1575, and 1576 are not eligible for any type of airworthiness certificate. Major structural deviations and intentional internal damage were accomplished on assemblies to render them unairworthy prior to donation to institutions and organizations for educational purposes only.
- NOTE 5. Mitsubishi Heavy Industries America Inc; 4951 Airport Parkway, Suite 800; Addison, Texas 75001, is licensed by Mitsubishi Heavy Industries, Ltd. to maintain the type design and to manufacture replacement and modification parts for the Model MU-2B series airplanes listed in this type certificate data sheet.
- NOTE 6. Model MU-2B series airplanes with the serial number shown on Serial Nos. eligible column herein, were manufactured by Mitsubishi Aircraft International, Inc., MU-2B-40 with Serial Nos. 458S.A. and MU-2B-60 with Serial Nos. 1563S.A. through 1569S.A. were manufactured under FAA Production Certificate No. 4SW.
- NOTE 7. Airworthiness Directive— AD 2003-04-23, mandated that the existing blades be replaced with new blades of the Latest design in accordance with Hartzell Propeller Inc. SB HC-SB-61-250, Revision 1, dated April 8, 2002. Effected models are MU-2B-25/-35/-26/-36. Removed Blade: T10178H-11R, T10178H(B)-11, T10178H(B)-11R Replaced By: T10178(N)B -11, T10178(N)B -11R
- NOTE 8. Airworthiness Directive— AD 93-07-11, mandated that the maximum deflection of the elevator nose-down tri reduce to 1 degree from 10 degrees in accordance with Mitsubishi Heavy Industries LTD. Service Bulletin No. 079/27-010 dated August 28, 1992. Effected models are MU-2B-25/-26/-26A/-40/-35/-36/-36A/-60
- NOTE 9. Updated the propeller blades per Hartzell SB HC-SB-61-170, Rev.B, dated September 18, 1992, and A188, dated February 25, 1994, AD 95-01-02.
- NOTE 10. Updated the propeller hubs and blades per Hartzell TC Data Sheet P15EA, Note 6(a) and (c).

.....END....